A. STEVENS.

MOWING-MACHINE.

No. 187,737.　　　　Patented Feb. 27, 1877.

Fig. 1.

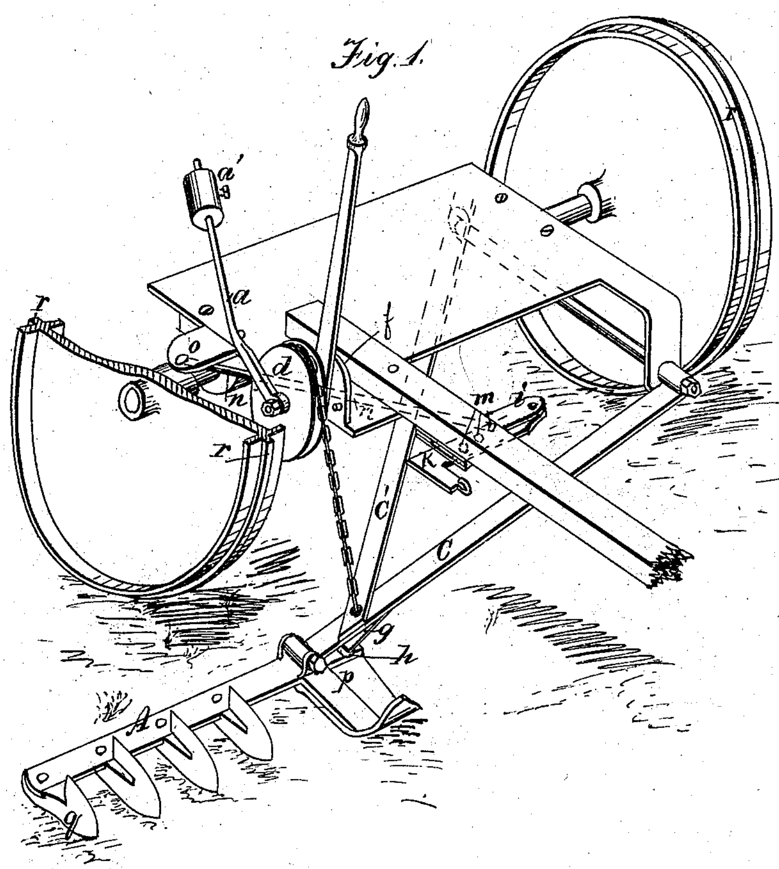


Fig. 2.

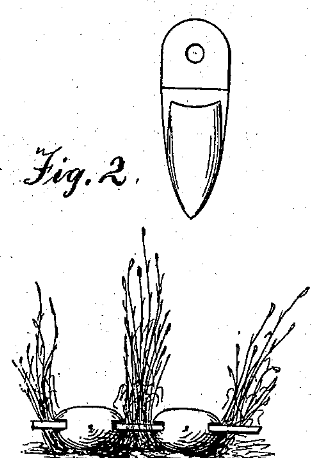
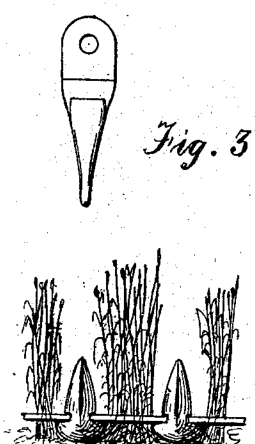


Fig. 3



Witnesses;
Grenville Lewis
[signature]

Inventor.
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His Attys

UNITED STATES PATENT OFFICE.

ANSEL STEVENS, OF GORHAM, MAINE.

IMPROVEMENT IN MOWING-MACHINES.

Specification forming part of Letters Patent No. **187,737**, dated February 27, 1877; application filed May 12, 1876.

To all whom it may concern:

Be it known that I, ANSEL STEVENS, of Gorham, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Mowing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a perspective view of my machine. Fig. 2 is a view of the old form of guard, and Fig. 3 a view of my improved form.

Similar letters of reference in the accompanying drawing denote the same parts.

In the drawing, A represents the cutter-bar, which is connected to the body of the machine by the hinged bar C and the brace C′. This bar C is suspended, by a chain or some equivalent device, from a pulley, *d*, over the grooved edge of which it passes, and to which it is securely fastened.

The pulley is pivoted in convenient position upon the frame of the machine. To it is fixed a handle, rising to such a position in relation to the seat of the machine as to be readily grasped by the driver, who, by a backward or forward movement of the lever, can give a partial rotation to the pulley, and thus raise or lower the bar C, and with it the cutter-bar.

On the outer end of the pivot of the pulley *d* I have pivoted a lever, *a*, on the free end of which is a weight, *a′*, made to slide on the rod, and in this way to regulate the amount of the weight which acts upon the pulley.

The force of the weighted lever is applied to the pulley by means of a small pin in the side of the pulley; but obviously the lever may be attached to the pulley in other ways. It is also obvious that the same force may be applied to this pulley by means of a spring, placed either on the pulley itself or on some intermediate part.

The action of this counter-balance is manifestly against the weight of the cutter-bar, tending to raise it from the ground.

Of course, the amount of weight will depend both upon the size of the weight and upon its distance from the fulcrum. The weight may be held in place at any given point by suitable set-screw, or in any other well-known way.

It is plain, moreover, that the cutter-bar may be allowed to press upon the ground with any degree of lightness desired, and the weight thus taken from the ground is thrown upon the wheels, thus increasing their traction, while the friction of the cutter-bar is proportionally lessened.

The weight may be so adjusted that a very small force applied to the hand-lever will serve to lift the cutter-bar when such lifting is desirable.

This hand-lever is connected to the pulley by pivoting on the inner end of the pivot of that pulley, and acts against pins on the inner face of the pulley, being pressed against the said face by a semi-elliptical spring acting between the lever and the pulley.

The pole of the machine is bolted to the frame or body in the usual way; but I have devised an improved draft-connection, by which the draft may be thrown upon one side whenever it is desirable to do so by reason of any inequality in the strength of the horses.

This device consists of a T-shaped iron, (marked in the drawings *i*, and represented as bolted to the under side of the pole.) On the outer end of this iron is pivoted another bar, *k*, the end opposite to the pivot being furnished with a draft-hook. In this bar are formed a suitable number of holes, (marked *m m m*,) in any one of which the bent end of the rod *n* may be hooked. This rod is carried back and fastened to the frame, as shown at *o*, in order to bring the line of draft as nearly as possible in the true central line of resistance of the machine when in action.

Obviously, when the forward end of the rod *o* is changed to the right or left in the holes *m m m*, a center or side draft may be obtained, as may be desired.

I claim as my invention—

1. The lifting-pulley *d* and chain thereon, connected to the cutter-bar, in combination with the counter-balance independent of the hand-levers, as set forth.

2. The combination of the pulley, chain, hinge-bar, and the independently-operating counter-balance and hand-lever, as set forth.

3. The variable draft apparatus *i k*, as and for the purposes set forth.

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